

WHAT IS CLAIMED IS:

1. A photosensitive thick film composition comprising:
a photosensitive organic component comprising an organic binder having
an acidic functional group;
an inorganic component comprising a polyvalent metal compound; and
5 a polyhydroxy alcohol having a plurality of hydroxyl groups.
2. A photosensitive thick film composition according to Claim 1, wherein the
inorganic component is an insulating material, a dielectric material or a magnetic
material.
3. A photosensitive thick film composition according to Claim 2, wherein the
inorganic component comprises at least one of powdered glass and powdered ceramic.
4. A photosensitive thick film composition according to Claim 1, wherein the
polyhydroxy alcohol has two to about six hydroxyl groups.
5. A photosensitive thick film composition according to Claim 4, wherein the
polyhydroxy alcohol is selected from the group consisting of glucitol, pentamethylene
glycol, glycerin, erythritol, xylitol and mannitol.
6. A photosensitive thick film composition according to Claim 1, wherein the
polyhydroxy alcohol is liquid at room temperature and is present in a ratio of from about
0.1 to 5 parts by weight per part of the inorganic component.

7. A photosensitive thick film composition according to Claim 1, wherein the polyhydroxy alcohol is solid at room temperature and is present at about 0.01 to 20 percent by weight of the total of the polyhydroxy alcohol and the inorganic component.

8. A photosensitive thick film composition according to Claim 1, wherein the polyvalent metal is at least one member selected from the group consisting of boron, lead, zinc, bismuth, aluminum, magnesium, calcium, barium, titanium, strontium, zirconium, manganese, cobalt, nickel, iron, yttrium, niobium, lanthanum and ruthenium.

9. A photosensitive thick film composition according to Claim 1, wherein the organic binder is an acrylic copolymer having carboxyl groups on side chains.

10. A photosensitive thick film composition according to Claim 1, wherein the inorganic component occupies a volume fraction of about 30 to 90% based on the solid content of the photosensitive thick film composition.

11. A photosensitive thick film composition according to Claim 10, wherein the polyhydroxy alcohol has two to about six hydroxyl groups and a boiling point of at least about 178°C; the inorganic component comprises at least one of powdered glass and powdered ceramic; the polyvalent metal is at least one member selected from the group consisting of boron, lead, zinc, bismuth, aluminum, magnesium, calcium, barium, titanium, strontium, zirconium, manganese, cobalt, nickel, iron, yttrium, niobium, lanthanum and ruthenium; and wherein the organic binder is an acrylic copolymer having carboxyl groups on side chains.

12. A photosensitive thick film composition according to Claim 1, further comprising a conductive metal.

13. A photosensitive thick film composition according to Claim 12, wherein the conductive metal component is at least one powdered conductive metal selected from the group consisting of gold, silver, copper, platinum, aluminum, palladium, nickel, molybdenum and tungsten.

14. A photosensitive thick film composition according to Claim 12, wherein the total of the conductive metal component and the inorganic component occupies a volume fraction of about 30 to 89% based on the solid content of the photosensitive thick film composition and wherein the conductive metal is about 30 to 95 weight % of the combination of the conductive metal component and the inorganic component.

15. An electronic device comprising the combination of:
a substrate; and
a conductive pattern comprising a baked photosensitive thick film composition according to Claim 12.

16. An electronic device according to Claim 15, further comprising a plurality of layers on the substrate at least one of which has a via hole therein.

17. An electronic device comprising:
a substrate; and
a functioning layer on the substrate comprising a baked photosensitive thick film composition according to Claim 2.

18. An electronic device according to Claim 17, wherein the functioning layer is an insulating layer, a dielectric layer or a magnetic layer, and has a via hole therein.

19. An electronic device comprising:
a substrate; and
a functioning layer on the substrate comprising a baked photosensitive
thick film composition according to Claim 1.
20. An electronic device according to Claim 19, wherein the functioning layer
is an insulating layer, a dielectric layer or a magnetic layer, and has a via hole therein.

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